4-H Operator Safety Contests



Items updated since January 2024:

- 1. The 2025 tractor/lawn and garden tractor/zero-turn mower operator skills area and state contests will include the parts identification and obstacle course practicums only. The quiz/exam practicum will not be part of the 2025 contests.
- 2. Tractor operator skills area and state contests will include a Pre-Trip Inspection. (p. 12 and 16)
- 3. All scorecards have been updated to reflect 2025. Junior and Senior Tractor include the pre-trip inspection. No content changes to lawn and garden or zero turn mower.

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I. INTRODUCTION

A. CONTEST OBJECTIVE

Agricultural and lawn and garden tractors are the most extensively used pieces of equipment on farm and home grounds today. Because of its extensive use, the tractor is involved in more farm accidents than all other farm machines combined. Farm tractors are associated with approximately 50 percent of all farm-related deaths.

The 4-H Petroleum Power Operator's Contest provides the 4-H members with an opportunity to actually put into practice, before their peers and a panel of judges, their ability to safely and effectively operate an agricultural, lawn and garden tractor and/or zero-radius mower.

B. CONTEST GOALS

- Develop the skills, leadership, and citizenship of the 4-H members.
- Emphasize safety practices.
- Maintain and increase interest of 4-H members.
- Provide the members with an opportunity to demonstrate their skills and knowledge of agricultural tractor and/or lawn and garden tractor operation, maintenance, and safety.
- Stimulate the desire to complete the petroleum power program.
- Provide a premier event for the 4-H petroleum power program.
- Provide an opportunity to inform the public of the 4-H petroleum power program and what 4-H members are doing.
- Train 4-H members in the safe operation of lawn and garden tractors and equipment, and/or agricultural tractors and equipment.

II. SUGGESTED CALENDAR OF EVENTS

for both agricultural and lawn and garden tractor

October - November

- Hold planning meeting for the petroleum power program.
- Contact machinery dealers, lawn and garden shops, tire companies, or other locations to confirm dates for the tractor meetings.
- Contact resource people to help conduct the meetings.
- Order necessary publications and audio-visual materials. (Do not wait until the last minute to schedule films. See audio-visual catalogues available in the County Extension Offices or dealerships safety materials.)

December

- Send letters to 4-H agricultural tractor and lawn and garden tractor club members informing them of the time, dates, and locations of the upcoming meetings.
- Prepare an initial news release on the upcoming meetings, objectives of the program, and where enrollment information is obtained.
- Have last year's participants prepare posters for display in schools, farm equipment dealerships, lawn and garden shops, and other locations to encourage enrollment in the 4-H Petroleum Power Program.

January – April

• Conduct 4-H Petroleum Power Program meetings.

April

• Send thank-you notes to those who helped with the program (guest speakers, machinery dealers, lawn and garden shops, etc.).

May

- Schedule the county contests.
- Contact implement dealers and lawn and garden shops concerning tractors for use in the contests.
- Notify participants of the time and location of contests.

June – July

- Finalize details with implement dealers and lawn and garden shops concerning availability of tractors.
- Remind participants of the contests.
- Conduct county contests.
- Report results of contests to news media.

July - August

Area contests

August

State contests

III. THE CONTEST

A. PARTICIPATION

1. County

Every county should conduct a county contest prior to the area contest and can submit three (3) entries per division (Junior and Senior) of the agricultural tractor, lawn and garden tractor and zero-turn radius events in the area contest. An area may accept more entries if contest leadership deems necessary.

Note: Every 4-H Petroleum Power member should be encouraged to participate in the county Petroleum Power Operator's Contest.

2. Area

- A contestant may compete in only one event per year.
- A contestant may compete in the same event multiple years, provided they are eligible, even if they have previously won that event.

3. State

- All areas may send three (3) contestants in each division (Junior and Senior) of the agricultural tractor, lawn and garden tractor and zero-turn radius events to the state contest.
- A contestant may compete in only one event per year.
- A contestant may compete in the same event multiple years, provided they are eligible, even if they have previously won that event.
- Effective 2020 there is no longer an option for previous event winners to defend their title.

B. PLANNING

1. County

- The county contest should be organized by the county tractor leader(s) and/or Extension educator.
- Holding the county contest during the county fair could create a considerable amount of spectator interest and public support of the program. If the area contest is scheduled prior to the county fair, it is necessary to hold the county petroleum power operator's contest at a separate event.

2. Area

- The area contest should be organized by the county Extension educator of the host county, in cooperation with the area 4-H tractor council.
- The area contest should rotate from county to county, giving each county the opportunity to host the contest.

3. State

- The state contest is organized by the State 4-H specialist and Indiana State 4-H Petroleum Power Council.
- The state contest is held at the Indiana State Fairgrounds during the Indiana State Fair.

C. ORGANIZER(S) RESPONSIBILITIES

- Select the date for the contest.
- Reserve the contest site. The contest site should be a plot of level ground. Be sure to check contest size requirements for each course to ensure adequate space.

Note: Care must be taken to provide for the safety and comfort of the spectators.

- Contact local dealers in an effort to obtain equipment for the contest. Sponsoring dealers should be
 contacted several weeks before the contest. The dealers should be given the size and specifications of
 the equipment desired. (See Section IV B, C, and D Junior and Senior Agricultural Tractor and Section
 VII B Lawn and Garden Tractor for required specifications.) It is a good idea to check again with the
 sponsoring dealers one week ahead of the contest to ensure that there are no problems and to provide
 final details on location and time of contest.
- Notify all participants and/or county extension offices of the time, date, and place for the contest.
- Obtain the equipment listed in Section D on page 7.
- In the county contest, the organizing person should obtain the judges. There should be a minimum of two (2) judges per course.

Note: Parents of participating youth should not be judges of the division in which their child is a contestant. Prior contest participants make excellent judges. Dealers and personnel are another source of possible judges.

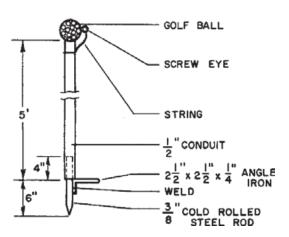
- In the area contest, each county should be responsible for providing at least one judge.
- Publicize the contest and its results in the news media (newspaper, radio, etc.).

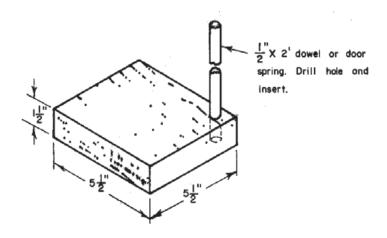
D. EQUIPMENT

- Stop watches (at least two for each course)
- Clipboards and pencils (one clipboard per judge plus enough pencils so the contestants may take the written examination)
- Two-wheeled trailer (for dimensions see Section IV, C, 1 on page 11)
- Four-wheeled wagon (for dimensions see Section IV, D, 1 on page 15)
- Agricultural tractors and lawn and garden tractors from local dealers (Specifications are listed on page 10 for agricultural tractor and page 27 for lawn and garden tractor/zero radius mowers.)
- Stakes to mark courses for lawn and garden tractor, zero radius mower and agricultural tractor events
- Ball of twine or lime to mark between stakes
- Steel tapes and yardsticks or rulers
- Steel drawbar pins (Safety hitch pins should be used.)
- Official scorecards for each contestant (The agricultural tractor event uses scorecards 4-H 84a-c, and the lawn and garden tractor/zero radius mower events uses scorecards 4-H 84d-g.)
- Written examinations (one copy per contestant) (Preparation of county exams is the responsibility of the petroleum power leader(s) and/or Extension educator. State provided quiz questions are available in the county extension office.)
- A copy of the "Clarification of the Scorecard" (Section VI, pages 23-25) for each judge (Should mail to the judges in advance along with a copy of the scorecard so they have a chance to look at it prior to the contest.)
- Sticky labels or masking tape to number and identify parts for identification
- Public address system (optional)
- Steel posts and rope to create barrier around the contest area (optional)
- Parts and/or parts pictures for each division

E. SUGGESTED STAKES AND BOUNDARY LINES

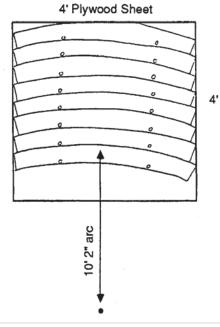
 Lawn and Garden Tractor/Zero Radius Mower Suggested Stakes





Suggested Boundary Lines for Obstacles 1, 3, and 4

- Obstacle 1
 - 2 Ropes 40' long
 - 6 Metal keyrings clamped or taped on each rope at 5' and 10'
- Obstacle 3
 - 2 Ropes 40' long
 - 5 Metal key rings clamped or taped on each rope at 10' spacing
- Obstacle 4
 - 1 Rope 30' long
 - 4 Metal key rings clamped or taped, one at each end and 12' back from each end

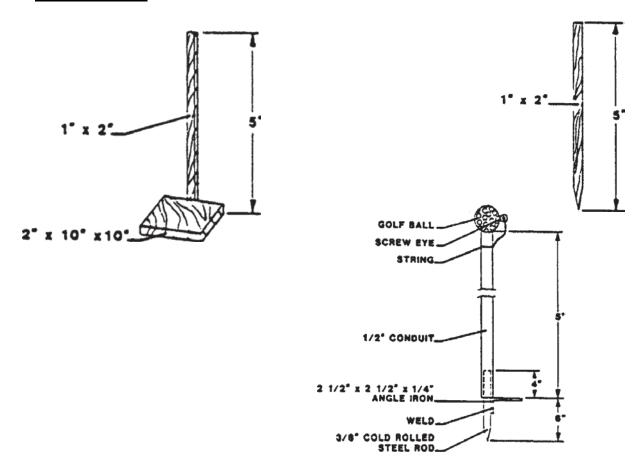


Suggested Obstacle 2 Materials

- Measuring rope 10' long with ring on each end
- Curb plywood 4' x 4' x 1/4" or 3/8".
- Cut each piece 5" x 4'. Taper each end with arc. Drill a 1" hole one foot from each end for stake. Paint white. When dry, paint green line 2" from outside. Eight pieces are needed.
- Stakes 1/2 x 12" long

2. Agricultural Tractor

Suggested Stakes



IV. AGRICULTURAL TRACTOR OPERATORS CONTEST

A. GENERAL RULES

- There are two divisions, Junior and Senior, in the contest.
- Junior Division contestants must be in/completed either grades 3, 4, 5, 6, or 7 at the time of the contest.
- Senior Division contestants must be in/completed grades 8, 9, 10, 11, or 12 at the time of the contest.
- Contestants must be enrolled in the 4-H petroleum power program.
- Contestants are not to wear loose fitted clothing or apparel with draw strings, accessories like
 necklaces, chains or loose wristbands, or anything that could present a safety hazard. If it presents a
 PTO or entanglement hazard, it is not permissible. Long hair is to be secured in a ponytail or other
 means. Closed-toed shoes must be worn. Shorts are acceptable. Judges have the final decision
 regarding acceptable clothing and accessories. It is the contestant's responsibility to ask judges prior
 to completing the obstacle course if any clothing or accessories are questionable.
- Contestants participating in the area and/or state contest must have their project records completed before entering the contest.
- Contestants are judged on safety at all times while at the contest site: before, during, and after their contest operation. At the discretion of the judges, unsafe operation may disqualify a contestant.
- At the state contest, a separate course is provided for each division.

- The driving order should be determined by allowing the contestants to draw numbers.
- The penalty scoring system is to be used. Unanswered or incorrectly answered questions and violation of rules draws penalty points for the contestant. In each division, the contestant who completes the event with the lowest total score or number of penalty points is the contest winner.
- While at the contest, all participants are scored on safety, written quiz, parts identification, tractor operation on the course, and time.
- The driving event is timed and scored on the basis of one penalty point for each second of operation. However, penalty points for safety violations, hit stakes, etc. are severe enough that the importance of speed is minimized.
- In both divisions, drive time exceeding 8 minutes results in a penalty of 400 points

Note: Officials, prior to the contest, may waive the eight-minute time limit.

- In case of a tie score for an award, the tie is broken using the contestants' scores in the specific scoring categories: safety, written exam, parts identification, obstacle course score (tractor operation on course), and time on course. The order for breaking a tie is:
 - 1. safety
 - 2. written exam
 - 3. parts identification
 - 4. obstacle course score
 - 5. time

If comparing the contestants' scores in each of the above categories fails to break the tie, the contestants re-drive (safety, obstacle course score, and time is counted).

Any rule or interpretation not covered here will be decided by the superintendent and assistants of the
contest. Their decisions are final.

B. AGRICULTURAL TRACTORS

- Safety devices will not be disabled for the contest. Equipment cannot be modified so contestants can
 operate the equipment and contestants are not permitted to add additional weight to operate the
 equipment. It is up to the judge's discretion if a contestant is unable to operate the equipment with
 manufacturer's safety devices.
- All tractors must have normal standard factory-installed equipment only. The use of steering "spinners" is not allowed. The contestant is not allowed to use his/her own tractor.
- The contestant is responsible for seeing that the tractor is suitable for driving in the contest and for its proper operation.
- If at all possible, ROPS (Roll-Over-Protective-Structure)-equipped tractors should be available for use in the contest. Contestants on ROPS-equipped tractors must wear the seatbelt.
- The tractor should contain a PTO and standard drawbar.
- Two wheel drive tractors with or without front-wheel assist may be used.

C. JUNIOR DIVISION

Junior contestants pull a two-wheel trailer through the course outlined on page 14.

1. Pulled Implement – Junior

- Because a large number of implements pulled behind tractors on the farm are of the two-wheel type, a
 two-wheel implement is used for the Junior Contest. If at all possible, this implement should be a twowheel trailer.
- Recommended specifications for the two-wheel trailer are:
 - 1. width = 8'
 - 2. length = 10-12'
 - 3. tongue length = approximately 3-4'as measured from the tongue's tip to the edge of the trailer's bed
 - 4. the wheel location should be about center of the bed.

Note: A simple frame may be constructed on the two-wheel implement so that the implement meets the above specifications.

• The implement may be hooked only to the tractor's rear drawbar.

2. Written Examination

- Questions for the Junior Division written examination are taken from Supplement #1, "Questions and Answers for Junior Division Written Test."
- The written guiz consists of 25 multiple-choice guestions.
- Each question is worth 20 points. A total of 500 penalty points is possible.
- Each contestant is given a maximum of 20 minutes to complete the exam.

3. Parts Identification

Note: Pictures may be used in place of actual parts.

- Twenty-five (25) items selected from the Junior Division Agricultural Tractor Parts Identification scorecard on page 21 are identified with a number.
- Contestants, using the Junior Division Agricultural Tractor Parts Identification scorecard (page 21), identify the tagged parts by writing the part's identification number next to the part's name on the scorecard.
- Each part incorrectly identified results in a 20-point penalty. A total of 500 penalty points are possible (only one penalty per tagged item).
- Each contestant is given a maximum of 20 minutes to complete the parts identification examination.

4. Pre-Trip Inspection

- The contestant has 5 minutes to complete the pre-trip inspection.
 - The contestant may ask questions prior to time starting if they feel the need to.
- Tires
 - Contestant must push on all tires with his/her hands and tell the judge they are checking for proper tire pressure.
- Oil

 Contestant must touch the engine oil dipstick and tell the judge they are checking for proper engine oil level.

Fuel

o Contestant must touch the fuel cap and tell the judge they are checking the fuel level.

Lights

Contestant must touch the head light switch and the hazard light switch (if different) and tell
the judge they are checking the lights and hazard.

Operator's Station

- Contestant must make sure that the operator's station is clean and clear. The contestant must tell the judge what, if anything, is within the operator's station that may cause unsafe operation of the tractor.
 - Judges may place up to 2 items on the operator's station for the contestants to deem unsafe.

Loose or Missing Parts

- Contestant must make sure that there are no loose or missing parts on the tractor that may cause unsafe operation.
 - Junior contestants need only to find 3 loose or missing parts.
 - Loose or missing items include, but are not limited to, tools left on or around the tractor, hardware that may have loosened or became missing or laying on the equipment, missing or loose caps or covers, missing or altered components, items laying on equipment that need to be stowed in a storage box, unplugged or unsafe electrical equipment, etc.

5. Time

- Time officially begins when the tractor starts to move, after the trailer has been hooked to the tractor.
- Time officially stops when the contestant, after backing the trailer into Obstacle "A" (shed), signals (throws one hand and arm into the air) the official judges that he/she has completed the course.

6. Contest Operating Procedure

• The diagram for the Junior Division Agricultural Tractor Obstacle Course (Section IV, C, 6 on page 14) is to be used at county, area, and state events. The general position of the obstacles does not have to be in the manner shown. For example, the contestant may be required to drive through Obstacle "C" (gate and lane) before Obstacle "B" (serpentine).

Note: Obstacle "C" (gate and lane) must be set-up so that a right hand turn is made when entering.

- The contest course should always be driven by a non-contestant on the largest tractor available before the contest starts to identify any problems in maneuvering the course.
- The contestant inspects and warms up the tractor in the designated area (in the presence of the safety judge). The contestant is expected to release the brakes, fasten and adjust the seatbelt, and check the PTO.
- The contestant drives the tractor to the shed, stops tractor in front of Obstacle "A" (shed), and leaves the engine running. Before dismounting, the brake(s) must be set, the PTO checked, and the

transmission placed in neutral. (If the tractor has a "PARK" position on the transmission, it may be left in "PARK.")

- The contestant dismounts so that he/she may check to see that the trailer is properly centered in the shed. (The official judges center the trailer if necessary.)
- The contestant mounts the tractor, fastens seatbelt, releases the brake(s), and backs the tractor into the shed.
- When the contestant has the tractor in front of the trailer he/she sets the brake(s), checks the PTO, places the transmission in neutral, and dismounts the tractor with the engine running. (If the tractor has a "PARK" position on the transmission, it may be placed in "PARK.")
- The official judges hook the trailer to the tractor's rear drawbar.
- After being signaled by the official judge, the contestant mounts the tractor, releases the brake(s), fastens the seatbelt, etc. Time starts when the tractor starts to move. The contestant drives through the obstacles as indicated on the diagram (Section IV, C, 6 on page 14) or as specified by the official judges.

Note: The contestant may pull through Obstacle "B" from either side just as long as he/she backs through the opposite way.

The contestant backs the trailer into the shed until the rear of the trailer is within one foot of the
center stake. Time stops when the contestant signals (throws one hand and arm into the air) the
official judges that he/she is done. Next the contestant sets the brake(s) (transmission in neutral) or
places the transmission in "PARK," checks the PTO, and dismounts with the engine running.

Note: The contestant is penalized if the trailer touches the rear center stake in the shed.

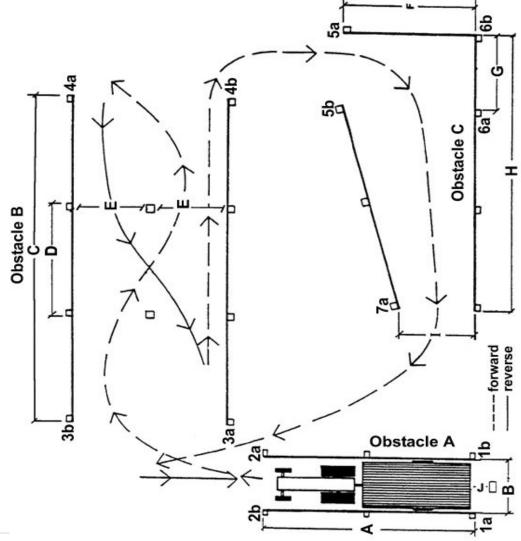
Note: The entire trailer must be completely in the shed. If any portion of the trailer extends beyond the front of the shed a "Failure to complete course as prescribed" penalty is accessed.

- The official judges unhook the trailer from the tractor's drawbar.
- At the official's signal the contestant mounts the tractor and drives it to the area designated.
- The contestant sets the brake(s) (transmission in neutral) or places the transmission in "PARK," checks the PTO, shuts off the engine, and dismounts the tractor.

6. Junior Division Agricultural Tractor Obstacle Course

1a to 2a	IfB = 8'4"	26'4"
or	If B = 8'5"	26'5"
1b to 2b	If B = 8'6"	26'5"
3a to 4a	If E = 13'	56'4"
or	If E = 13'6"	56'10"
3b to 4b	If E = 14'	57'4"
	If F & G = 13'	18'5"
5a to 6a	If F & G = 13'6"	19'1"
	If F & G = 14'	19'10"
	If I = 8'4"	42'10"
6b to 7a	If I = 8'5"	42'10"
	If I = 8'6"	42'10"

A		25'
В	4" - 6" wider than trailer	8'4" - 8'6"
С		50'
D	3' - 5' longer than trailer	17' - 19'
Е		13' - 14'
F	5' - 6' wider than trailer	13' - 14'
G	Same as F	13' - 14'
Н		42'
I	4" - 6" wider than trailer	8'4" - 8'6"
J	Distance from end of Obstacle A to stake	1'



D. SENIOR DIVISION

Senior contestants pull a four-wheel wagon with knuckle-type radius rods (auto type) steering.

1. Pulled Implement - Senior

- A four-wheel wagon should be used for the Senior Division.
- Recommended specifications:
 - 1. 8' by 14' bed
 - 2. knuckle-type radius rods (auto type) steering
 - 3. approximately 10' length between axles
 - 4. approximately 52" stub tongue (measured from front of bed to tip of tongue)

Note: A simple frame may be constructed on the 4-wheel wagon so that the wagon meets the above specifications.

The wagon may be hooked only to the tractor's rear drawbar.

2. Written Examination

- Questions for the Senior Division written examination are taken from both Supplement #1 (Questions and Answers for Junior Division Written Test) and Supplement #2 (Questions and Answers for Senior Division Written Test).
- The written quiz consists of 25 multiple-choice questions.
- Each question is worth 20 points. A total of 500 penalty points are possible.
- Each contestant is given a maximum of 20 minutes to complete the exam.

3. Parts Identification

Note: Pictures may be used in place of actual parts.

- Twenty-five (25) items selected from the Senior Division Agricultural Tractor Parts Identification scorecard on page 22 are identified with a number.
- Contestants, using the Senior Division Agricultural Tractor Parts Identification scorecard (page 22), identify the tagged parts by writing the part's identification number next to the part's name on the scorecard.
- Each part incorrectly identified results in a 20-point penalty. A total of 500 penalty points are possible (only one penalty per tagged item).
- Each contestant is given a maximum of 20 minutes to complete the parts identification examination.

4. Pre-Trip Inspection

- The contestant has 5 minutes to complete the pre-trip inspection.
 - The contestant may ask questions prior to time starting if they feel the need to.
- Tires
 - Contestant must push on all tires with his/her hands and tell the judge they are checking for proper tire pressure.

- Oil
- Contestant must touch the engine oil dipstick and tell the judge they are checking for proper engine oil level.
- Fuel
 - Contestant must touch the fuel cap and tell the judge they are checking the fuel level.
- Lights
 - Contestant must touch the head light switch and the hazard light switch (if different) and tell
 the judge they are checking the lights and hazard.
- Operator's Station
 - Contestant must make sure that the operator's station is clean and clear. The contestant must tell the judge what, if anything, is within the operator's station that may cause unsafe operation of the tractor.
 - Judges may place up to 2 items on the operator's station for the contestants to deem unsafe.
- Loose or Missing Parts
 - Contestant must make sure that there are no loose or missing parts on the tractor that may cause unsafe operation.
 - Senior contestants need only to find 5 loose or missing parts.
 - Loose or missing items include, but are not limited to, tools left on or around the tractor, hardware that may have loosened or became missing or laying on the equipment, missing or loose caps or covers, missing or altered components, items laying on equipment that need to be stowed in a storage box, unplugged or unsafe electrical equipment, etc.

5. Time

- Time officially begins when the tractor starts to move after the contestant has hooked the wagon to the tractor.
- Time officially stops when the contestant, after pulling the wagon into Obstacle "A" (shed), signals (throws one hand and arm into the air) the official judges that he/she has completed the course.

6. Contest Operating Procedure

• The dimensions stated for the Senior Division course in Section IV, D, 6 on page 18 should be used for county, area, and state events. The Senior Division Agricultural Tractor Obstacle Course is driven in the manner indicated or as the official judges indicate.

Note: Obstacle "C" (gate and lane) must be set-up so that a right hand turn is made when entering. The contestant may be required to drive through Obstacle "C" (gate and lane) before Obstacle "B" (serpentine). The contest course should always be driven by a non-contestant on the largest tractor available before the contest starts to identify any problems in maneuvering the course.

- The contestant inspects and warms up the tractor in the designated area (in the presence of safety judge). The contestant is expected to release the brakes, adjust and fasten the seatbelt, and check the PTO.
- The contestant drives the tractor to the shed, stops the tractor in front of Obstacle "A" (shed), and leaves the engine running. Before dismounting, the transmission must be in neutral, the PTO checked, and the brake(s) set. (If the tractor is equipped with "PARK," it should be left in "PARK.")

- The contestant may dismount the tractor so that he/she may check the wagon to see that it is centered in the shed. (The official judges help the contestant center the wagon if so desired.)
- The contestant mounts the tractor, fastens seatbelt, releases the brake(s), and backs the tractor into the shed.
- The contestant stops and dismounts, with the engine running, transmission in neutral position, brake(s) set. (If the tractor is equipped with "PARK," it should be left in "PARK.") The contestant must check the PTO for disengagement prior to dismounting. It is not necessary to pin both brake pedals together. Using a DRAWBAR SAFETY HITCH PIN, hook the wagon to the tractor's rear drawbar inserting the DRAWBAR SAFETY HITCH PIN from the top side of the wagon's tongue to the bottom side of the wagon's tongue such that the pin's safety clip/device is on the bottom side of the wagon's tongue.
- Time starts when the tractor starts to move after the wagon is hooked to the tractor.
- Contestant drives through the obstacle course as outlined by the official judges.

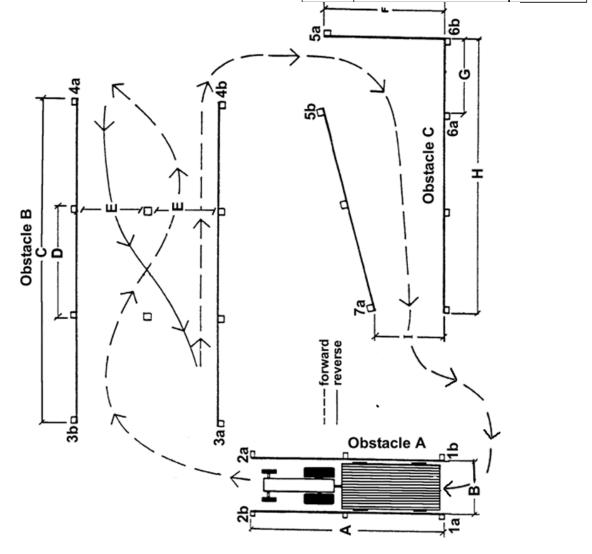
Note: The contestant may pull through Obstacle "B" from either side just as long as he/she backs through the opposite way.

- On entering the shed (note that the contestant does not back into the shed) the back of the wagon must be stopped inside the shed within one foot of the rear of the shed.
- Time stops when the contestant signals (throws one hand and arm into the air) that he/she has completed the course. Next the contestant sets the brake(s) (transmission in neutral) or places transmission in "PARK," checks the PTO, and dismounts with the engine running.
- The contestant unhitches the wagon, setting the wagon's tongue on the ground.
- The contestant returns the tractor to area designated. After setting the brake(s) (placing the transmission in neutral) or leaving the transmission in "PARK," checking the PTO for disengagement, he/she shuts off the tractor and dismounts.

6. Senior Division Agricultural Tractor Obstacle Course

1a to 2a	If B = 8'4"	26'4"
or	If B = 8'5"	26'5"
1b to 2b	If B = 8'6"	26'5"
3a to 4a	If E = 13'	56'4"
or	If E = 13'6"	56'10"
3b to 4b	If E = 14'	57'4"
	If F & G = 13'	18'5"
5a to 6a	If F & G = 13'6"	19'1"
	If F & G = 14'	19'10"
	If I = 8'4"	42'10"
6b to 7a	If I = 8'5"	42'10"
	If I = 8'6"	42'10"

A		25'
В	4" - 6" wider than wagon	8'4" - 8'6"
С		50'
D	3' - 5' longer than wagon	17' - 19'
Е		13' - 14'
F	5' - 6' wider than wagon	13' - 14'
G	Same as F	13' - 14'
Н		42'
I	4" - 6" wider than wagon	8'4" - 8'6"



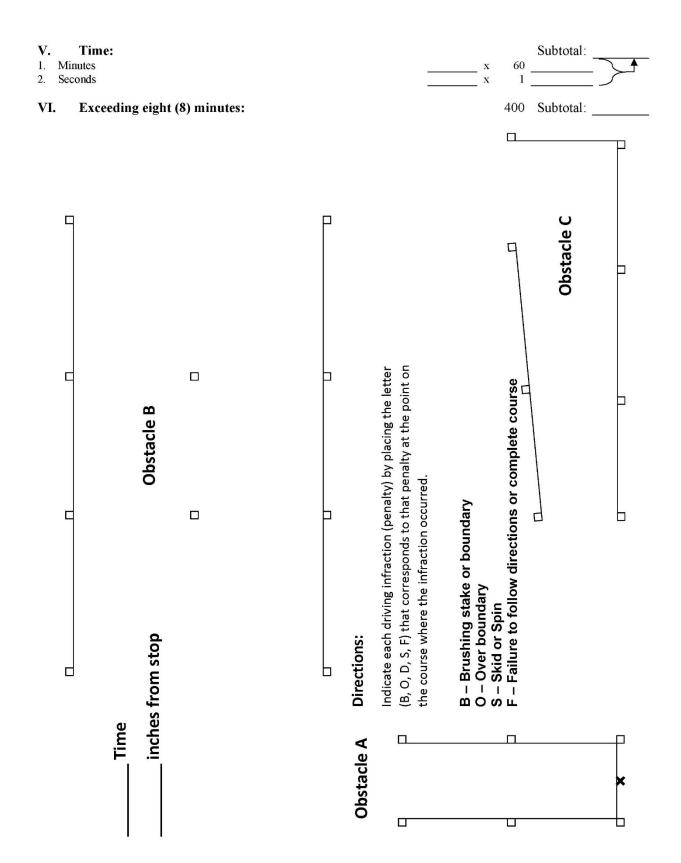
V. Official Tractor Scorecards					

4-H AGRICULTURAL TRACTOR OPERATOR'S CONTEST SCORECARD

2025 4-H 84a-jr-tr

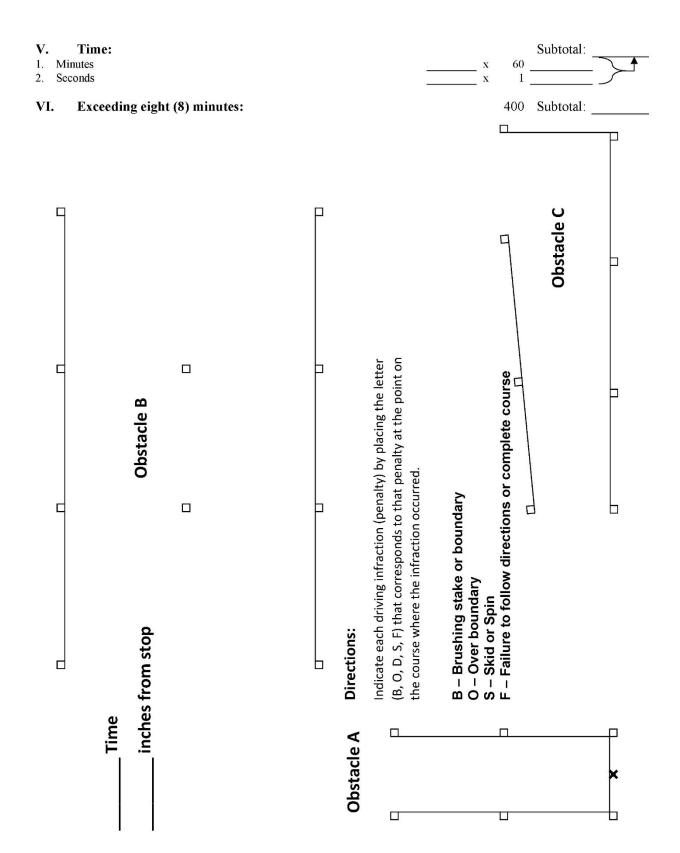
Junior Division

Contestant Name	Contestant Number		
County	Score		
I. Written Exam: (Questions Missed or Omitted)	x 20 Subtotal:		
II. Parts ID: (Parts Incorrectly Identified)	x 20 Subtotal:		
11. Farts 1D: (Farts incorrectly Identified)	A 20 Subtotal.		
III. Safety:	Subtotal:		
A. Prestart Check: Judge Initials			
1. Failure to check fuel level	x 25		
2. Failure to check oil level	x 25		
	x 25		
4. Failure to check headlights/flashers	x 25		
5. Failure to observe loose or missing parts (each part)	x 25		
B. Starting Safely:			
Failure to check neutral position of gearshift	x 100		
2. Failure to disengage clutch while starting engine	x 50		
3. Failure to check PTO for disengagement	x 50		
C. Driving Safety:			
6. Riding Clutch	x 50		
7. Failure to engage clutch gently	x 50		
	x 50		
9. Failure to ride on seat in a safe manner	x 100		
10. Skidding or spinning wheels	x 100		
11. Turning too short and fouling implement	x 100		
10 0	x 100		
13. Moving tractor with brakes set	x 50		
14. Inadequate precautions when officials or other contestants, etc. get in the way	x 100		
15. Any turn which causes any wheel on the tractor to leave the ground	DQ		
D. Mounting and Dismounting Safety:			
1 Failure to may me and dismay not safely man manufacturer design	x 100		
Failure to check neutral position of gearshift	x 100		
3. Failure to set brake or set in hold position of transmission before dismounting	x 100		
4. Failure to bring tractor to complete stop before dismounting	x 100		
5. Failure to check PTO for disengagement before dismounting	x 50		
E. Other Safety:			
Loose fitting or improper clothing	x 100		
2. Extra riders	x 100		
3. Awareness of operator	x 100		
4. Failure to fasten seatbelt (if R.O.P.S. is up)	x 100		
5. Failure to adjust seatbelt (if R.O.P.S. is up)	x 100		
6. Unsafe handling of wagon tongue	x 50		
7. Other unsafe practices ()	x 100		
W. Obstada Communica	0.14.4.1		
IV. Obstacle Course:1. Brushing stakes or boundary lines	x 50 Subtotal:		
Driving over a boundary line	x 30		
3. Failure to stop within 1 ft. of rear wall or stop stake (inside obstacle "A")	x 200 x 50		
4. Failure to complete course as prescribed	x 30 <i>f</i>		
. Tablet to complete course as presented			



Senior Division

Contestant Name Contestant Number County Score I. Written Exam: (Questions Missed or Omitted) X Subtotal: II. Parts ID: (Parts Incorrectly Identified) X 20 Subtotal: III. Safety: Subtotal: A. Prestart Check: Judge Initials Failure to check fuel level 25 Failure to check oil level 25 3. Failure to observe tire inflation Failure to check headlights/flashers 25 4. Х 25 Failure to observe loose or missing parts (each part) B. **Starting Safely:** Failure to check neutral position of gearshift 1. 100 Failure to disengage clutch while starting engine Failure to check PTO for disengagement 3. C. Driving Safety: Riding Clutch 6 50 Failure to engage clutch gently 7. Excessive gear grinding 50 8. Failure to ride on seat in a safe manner 100 10. Skidding or spinning wheels 100 11. Turning too short and fouling implement 100 12. Operation of tractor at unsafe speed 100 13. Moving tractor with brakes set 50 14. Inadequate precautions when officials or other contestants, etc. get in the way 100 15. Any turn which causes any wheel on the tractor to leave the ground DQ D. Mounting and Dismounting Safety: 1. Failure to mount/dismount per manufacturer design 100 2. Failure to check neutral position of gearshift Failure to set brake or set in hold position of transmission before dismounting 100 Failure to bring tractor to complete stop before dismounting 4. 100 Failure to check PTO for disengagement before dismounting Other Safety: E. Loose fitting or improper clothing 100 1 2. Extra riders 100 3. Awareness of operator 100 Failure to fasten seatbelt (if R.O.P.S. is up) 4. 100 5. Failure to adjust seatbelt (if R.O.P.S. is up) 50 Unsafe handling of wagon tongue 50 7. Other unsafe practices (_ 100 IV. **Obstacle Course:** Subtotal: 1. Brushing stakes or boundary lines Driving over a boundary line 200 Failure to stop within 1 ft. of rear wall or stop stake (inside obstacle "A") Failure to complete course as prescribed



Contestant Name		Score
County		Contestant Number
	Scoring Sheet	,

Parts to be identified have numbers attached to them. Select the correct part name from the list. Write the corresponding number beside the part name. Each *tagged* part incorrectly identified results in a twenty (20) point penalty. A total of 500 penalty points are possible. (Only one penalty per tagged part) Time limit = 20 minutes.

	total of ood perially perillo are podelble. (Offin) offe
	3 Point Hitch
	6 Point Socket
	12 Volt Battery
	Air Cleaner Housing
	Air Filter Element
	Alternator
	Amber Light
	Anti-freeze/Coolant Tester
	Ball Bearing
	Brake Pedals
	Combination Wrench
	Clutch Pedal
	Crowfoot Wrench
	DEF (Diesel Exhaust Fluid) Fill Cap
	Drain Plug
	Drawbar
	Engine Oil Dipstick
	Engine Oil Fill Cap
	Fire Extinguisher
	Front Tractor Tire
	Fuel Fill Cap
	Fuel Filter
	Fuse
	Hazard Light Switch
	Headlight

my lear a	
	Ignition Switch
	Muffler
	Park Brake Lever
	Phillips Screwdriver
	PPE (Personal Protective Equipment)
	PTO (Power Take Off) Switch
	Radiator Cap
	Range Selection Lever
	Rear Tractor Tire
	Red Tail Light
	Reflector
	ROPS (Roll Over Protective Structure)
	Seat Belt
	Slotted Screwdriver
	SMV (Slow Moving Vehicle) Sign
	Steering Wheel
	Tire Tube
	Torque Wrench
	Torx Screwdriver
	Universal Joint
	Valve Core
	Valve Stem
	Warning Label
	Wheel Hub
	Wheel Lug Bolt

Contestant Name		Score	
County		Contestant Number	
	Scoring Sheet		_

Parts to be identified have numbers attached to them. Select the correct part name from the list. Write the corresponding number beside the part name. Each *tagged* part incorrectly identified results in a twenty (20) point penalty. A total of 500 penalty points are possible. (Only one penalty per tagged part) Time limit = 20 minutes.

perialty. A total of 500 perialty points		
	3 Point Hitch	
	6 Point Socket	
	12 Volt Battery	
	Air Cleaner Housing	
	Air Filter Element	
	Alternator	
	Amber Light	
	Anti-freeze/Coolant Tester	
	Ball Bearing	
	Ball Joint Linkage	
	Battery Cable	
	Brake Pedals	
	Camshaft	
	Clutch Pedal	
	Combination Wrench	
	Connecting Rod	
	Crowfoot Wrench	
	DEF (Diesel Exhaust Fluid) Fill Cap	
	Drain Plug	
	Drawbar	
	EGR (Exhaust Gas Recirculation) Cooler	
	EGR (Exhaust Gas	
	Recirculation) Valve Engine Oil Dipstick	
	Engine Oil Fill Cap	
	Fire Extinguisher	
	Flywheel	
	Front Tractor Tire	
	Fuel Fill Cap	
	Fuel Filter	
	Fuel Injection Pump	
	Fuel Injector	

	Fuel Water Separating Filter
	Fuel Transfer Pump
	Fuse
	Gear
	Glow Plug
	Hazard Light Switch
	Headlight
	High Pressure Fuel Line
	Hydraulic Oil Dipstick
	Hydraulic Oil Hose
	Hydraulic Oil Filter
	Idler Pulley
	Ignition Switch
	Light Switch
	Muffler
ė i	Needle Bearing
	Park Brake Lever
	Phillips Screwdriver
	Piston
	Piston Rings
	PPE (Personal Protective Equipment)
	PTO (Power Take Off) Shaft
	PTO (Power Take Off) Switch
	Push Rod
	Radiator
	Radiator Cap
	Radiator Hose
	Range Selection Lever
	Rear Tractor Tire
	Red Tail Light
	Reflector

art) Time limit = 20 minutes.		
	Rocker Arm	
	Roller Chain	
	ROPS (Roll Over Protective Structure)	
	Serpentine Belt	
	Seat Belt	
	Slotted Screwdriver	
	SMV (Slow Moving Vehicle) Sign	
	Sprocket	
	Starter	
	Starter Solenoid	
	Steering Wheel	
	Tapered Roller Bearing	
	Throttle Control Lever	
	Tie Rod End	
	Tire Tube	
	Torque Wrench	
	Torx Screwdriver	
	Turbocharger	
	Universal Joint	
	Valve	
	Valve Core	
	Valve Cover	
	Valve Spring	
	Valve Stem	
	V-Belt	
	V-Belt Pulley	
	Warning Label	
	Water Pump	
	Wheel Hub	
	Wheel Lug Bolt	

VI. CLARIFICATION OF THE AGRICULTURAL TRACTOR SCORECARD

A. SAFETY

1. Grinding Gears

Penalty assessed if:

- The gears are ground when the engine is revved up. Avoid this penalty by shifting gears only when the engine is idling.
- The contestant continues to assert pressure on the gearshift lever after the gears have begun to grind. Avoid this penalty by releasing pressure on gearshift if gears start to grind.

2. Operating Tractor at an Unsafe Speed

Penalty assessed if:

- The front tire of tractor throws sod or dirt into the air. The contestants and judges should remember it is much easier to throw dirt on a bare surface.
- The contestant is momentarily thrown off the tractor seat.
- The contestant's speed is sufficient enough to cause any wheel (tractor or implement) to momentarily leave the ground.

3. Checking PTO

The contestant is required to check the PTO the first time that he/she gets onto the tractor and every time he/she dismounts the tractor thereafter. Glancing at the PTO is not considered sufficient. The contestant should actually look at and make sure the PTO is fully disengaged by touching the PTO lever. Touching the PTO lever allows the judge to recognize that the contestant has checked it. If the contestant is not sure of the disengaged position of the lever he/she should ask the judge.

4. Locking the Brakes

The brakes do not have to be locked together. Whether or not the brakes are locked together is left to the discretion of the contestant.

5. Setting Brakes

Every time the contestant dismounts the tractor, the brake(s) should be set or if the tractor has a "PARK" position on the transmission, it should be left in "PARK."

A penalty is assessed if the contestant attempts to move the tractor with the brakes set. If the contestant disengages the clutch with the brake(s) set, this is considered an attempt to move the tractor.

6. Failure to Check Neutral Position of Gearshift

A penalty is assessed if the contestant is coming up out of the seat and the tractor is still in gear. The contestant is not penalized if he/she is still completely seated when he/she discovers that the tractor is still in gear.

7. Fouling Implement

Penalty assessed if:

- Rear tractor tire touches any part of the implement.
- The contestant turns so short that the wagon is cramped, causing the front wheels to slide.

8. Skidding or Spinning Wheels

The contestant is penalized if:

 He/she jams on the brakes in such a manner that causes one or both rear wheels of tractor to slide.

Exception: The contestant is not penalized if he/she jams on the brakes in an effort to avoid hitting an official, spectator, or anybody on the course.

- He/she applies enough pressure to one brake to cause one of the rear wheels to start to spin or slide.
- He/she spins or slides the tractor wheels when starting or stopping.

9. Jumping Off or On Tractor

Any time that both feet leave the tractor's platform at the same time and from the same point (both feet in the air at the same time), the contestant is penalized for jumping off. Forward facing dismounting will also be penalized and counted as jumping off the tractor.

10. Riding the Clutch

The contestant is penalized 50 points if he/she lets his/her foot rest on the clutch pedal while moving between obstacles.

No penalty results if the contestant places his/her foot on the clutch pedal while operating the tractor and/or implement within the boundaries of an obstacle.

11. Palming the Steering Wheel

The penalty is assessed every time the contestant does not have at least one hand on the steering wheel.

NO PENALTY is assessed simply because the contestant is using only the palm of his/her hand to steer the tractor.

12. Other Safety

Under the category "other" the judge should list and explain the safety violation. Any violation under this area results in a 50- or 100-point penalty. Some examples of violations that may be entered here are: (1) failure to use safety pin when provided, and (2) failure to place wagon tongue on ground when unhitching.

13. Other Safety Rules to Remind Contestants About

- If a safety hitch pin is provided, the contestant is required to fasten the safety device when hitching up.
- The contestant is not allowed to swing his/her foot and leg over the top of the steering wheel when dismounting.
- The contestant is judged on safety at all times, whether he/she is practicing on the tractor or actually driving the course.
- When unhooking the wagon the contestant places the tongue on the ground. Driving out from under it and letting it fall to the ground results in a 50-point penalty, which is scored as "other" on the scorecard.
- If the tractor contains a ROPS (Roll Over Protective Structure) the contestant is required to wear the seatbelt. Failure to fasten the seatbelt results in a 100-point penalty (scored as "other" on the scorecard).

- The contestant must adjust the seatbelt the first time he/she mounts the tractor. Failure to do so results in a 50-point penalty (scored as "other" on the scorecard).
- Picking up the wagon's tongue with hand in the clevis will result in a 50-point penalty (scored as "other" on the scorecard).

B. OBSTACLE COURSE

1. Touching and Brushing Stakes or Boundary Lines

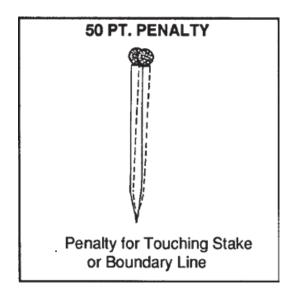
Penalties under this area:

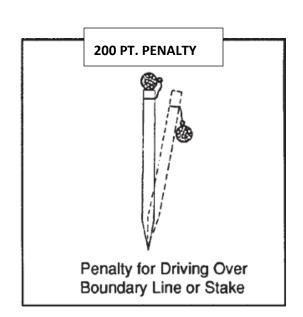
- Touching but not going over imaginary boundary lines and/or stake with tractor and/or implement. (See example A on page 26)
- Stake is touched but golf ball does not fall off.

2. Driving Over a Boundary Line or Stake

Penalty assessed if:

- Any part of the tractor and/or implement protrudes over the boundary line.
- A stake is knocked out of line such that no portion of the stake at the implement's bed height is still within the boundary line. (See example B on page 26.)
- Golf ball falls off.





VII. LAWN AND GARDEN TRACTOR OPERATORS CONTEST

A. GENERAL RULES

- There are two divisions, Junior and Senior, in the contest.
 - Junior Division contestants must be in grades 3-7 during that 4-H program year at the time of the contest.
 - Senior Division contestants must be in grades 8-12 during that 4-H program year at the time of the contest.
- Contestants must be enrolled in the 4-H petroleum power or small engine program.
- Contestants are not to wear loose fitted clothing or apparel with drawstrings, accessories like necklaces, chains or loose wristbands, or anything that could present a safety hazard. If it presents a PTO or entanglement hazard, it is not permissible. Long hair is to be secured in a ponytail or other means. Closed-toed shoes must be worn. Shorts are acceptable. Judges have the final decision regarding acceptable clothing and accessories. It is the contestant's responsibility to ask judges prior to completing the obstacle course if any clothing or accessories are questionable.
- Contestants participating in the area and/or state contest must have their project records completed before entering the contest.
- Contestants are judged on safety at all times while at the contest site: before, during, and after their contest operation. At the discretion of the judges, unsafe operation may disqualify a contestant.
- At the state contest a separate course is provided for each division.
- The driving order should be determined by allowing the contestants to draw numbers.
- The penalty scoring system is to be used. Unanswered or incorrectly answered questions and violations of rules draw penalty points for the contestant. In each division the contestant who completes the event with the lowest total score or number of penalty points is the contest winner.
- While at the contest, all participants are scored on safety, written quiz, parts identification, Lawn and Garden Tractor operation on the course, and time.
- The driving event is timed and scored on the basis of one-penalty point for each second of operation.
 However, penalty points for safety violations, hit stakes, etc. are severe enough that the importance of speed is minimized.
- In both divisions, failure to complete the course in eight minutes results in the driver being assessed a penalty of 400 points.

Note: Officials, prior to the contest, may waive the eight-minute time limit.

- In case of a tie score for an award, the tie is broken using the contestants' scores in the specific scoring categories: safety, written exam, parts identification, obstacle course score (lawn and garden tractor operation on course), and time on course. The order for breaking a tie is:
 - 1. safety
 - 2. written exam
 - 3. parts identification
 - 4. obstacle course score
 - 5. time

If comparing the contestants' scores in each of the above categories fails to break the tie, the contestants re-drive. (Safety, obstacle course score, and time is counted.)

• Any rule or interpretation not covered here is decided by the superintendent and assistants of the contest. Their decisions are final.

B. LAWN AND GARDEN TRACTORS AND ZERO-RADIUS MOWERS

Note: Safety devices will not be disabled for the contest. Equipment cannot be modified so contestants can operate the equipment and contestants are not permitted to add additional weight to operate the equipment. It is up to the judge's discretion if a contestant is unable to operate the equipment with manufacturer's safety devices.

- The lawn and garden tractor and zero-radius mower used in the contest should be from 12 to 30 horsepower in size.
- Mower Deck:
 - The lawn and garden tractor and zero-radius mower must contain a middle- mounted mower deck.
- The drive mechanism running the mower deck must be disconnected by a judge prior to the contest.
- It is strongly recommended that only one make and model of tractor be used on the driving course. Zero-turn mowers are to be twin stick control design. Other sizes and makes of lawn and garden tractors may be used for the maintenance-safety and parts identification (if real parts are used instead of pictures) segments of the contest.
- The mower deck should extend out at least four (4) inches beyond the lawn and garden tractor's rear tire.
 - The lawn and garden tractor should contain tractor-type front wheel steering.
- The lawn and garden tractor and zero-radius mower should contain a right-hand or rear discharge mower deck.

C. WRITTEN EXAMINATION

- Questions for the Junior and Senior Division written examinations are taken from Supplement #3,
 "Questions and Answers for Lawn and Garden Tractor Operators."
- The written exam contains 25 questions.
- Each question is worth 20 points. A total of 500 penalty points are possible.
- Each contestant is given a maximum of 20 minutes to complete the exam.

D. PARTS IDENTIFICATION

Note: Pictures may be used in place of actual parts.

- Twenty-five (25) items consisting of: lawn and garden tractor and equipment parts and supplies are tagged with a number.
- Contestants identify the tagged items by writing the part's identification number next to the part's name on the scorecard.

<u>Junior Division</u> contestants use the Junior Division Lawn and Garden Tractor Parts Identification scorecard on page 36.

<u>Senior Division</u> contestants use the Senior Division Lawn and Garden Tractor Parts Identification scorecard on page 37.

- Each part incorrectly identified results in a 20-point penalty. A total of 500 penalty points are possible. (Only one penalty per tagged part)
- A time limit of 20 minutes is imposed.

E. MAINTENANCE SAFETY CHECK

- A maximum of five (5) missing or loose parts will be identified by senior contestants. Junior contestants will identify a maximum of three (3) missing or loose parts.
- Contestants will be told on contest day how many parts there are.
- The loose or missing parts must be the same for all contestants.
- The maintenance/safety check should be conducted in a secluded area out of sight of the other contestants.
- Only one contestant at a time should be administered the maintenance/safety check.
- Contestants will be allowed a maximum of five (5) minutes to complete this activity.

F. OBSTACLE STICK

- The purpose of the obstacle stick is to emphasize that lawn and garden tractor and zero-radius mower operators must constantly be alert for foreign objects in their pathway.
- An obstacle stick is placed, by one of the judges, at some point in Obstacle 3.
- The obstacle stick should be placed after the contestant has started through Obstacle 1 but before he/she has proceeded more than halfway through Obstacle 1.
- The obstacle stick used should be similar to a 2" by 4" board 1 to 2 feet in length.
- The contestant is expected to stop set the brakes or place the transmission in "PARK," disengage the mower's blade, dismount the lawn and garden tractor/zero- radius mower (per manufacturer design), and remove the obstacle stick and hand it to a judge.
- Hitting or running over the obstacle stick results in a 50-point penalty

G. STOP-STAKEAND MEASUREMENT STAKE

- The stop-stake/line is a stake positioned distance "C" in front of Obstacle 4. (For dimension "C," see the Lawn and Garden Tractor Obstacle Course Diagram or the Zero-Radius Mower Obstacle Course Diagram). NOTE: A stake will be used for the lawn tractor course and a line will be used for the zero-radius course.
- The stop-stake/line should be 1 1/2 times distance "A" from the inside wall of Obstacle 3. (For dimension "A," see the Lawn and Garden Tractor Obstacle Course Diagram or the Zero-Radius Mower Obstacle Course Diagram). NOTE: A stake will be used for the lawn tractor course and a line will be used for the zero-radius course.
- The measurement stake is a stake located in the, rear of Obstacle 4.
- The stop-stake and measurement stake should be at least six (6) inches taller than the tractor's front hood. (Suggestion: five (5) feet or taller)

H. TIME

Start Time

<u>Junior Division</u> – Time officially begins when the lawn and garden tractor/zero-radius mower's front axle crosses the "start line" (line that extends across the front of Obstacle 1).

<u>Senior Division</u> – Time officially begins when the lawn and garden tractor/zero-radius mower's rear axle crosses the "start line" (line across the rear of Obstacle 1).

Stop Time

Time officially stops when the contestant, after backing the lawn and garden tractor/zero-radius mower into Obstacle 4 (shed), signals (throws one hand and arm into the air) the official judges that he/she is done.

I. CONTEST OPERATING PROCEDURE

The diagrams for the Junior and Senior Division Obstacle Course (Lawn garden tractor: Section VII, J and K, pages 31 and 32 and zero-radius mower: Section VII, L and M, pages 33 and 34) are to be used at the county, area, and state events. The courses should be driven in the manner indicated in the diagrams unless the official judges indicate otherwise.

Note: Obstacle 2 (semi-circle) should be set up such that the contestant is maneuvering the Lawn and Garden Tractor/Zero-Radius Mower in a counter-clockwise direction (right to left) around the semi-circle.

- Change of forward-backward motion unless prescribed results in a penalty. Example: If a contestant originally moving forward, backs-up (or vice-versa) to avoid hitting a marker and then continues through the course, one penalty is assessed.
- The contest course should always be driven by a non-contestant prior to the contest to identify any problems maneuvering the course.
- The contestant, with the safety judge present, performs a safety and maintenance check of the lawn and garden tractor or a Zero-Radius Mower.
- The contestant safely mounts the lawn and garden tractor/Zero-Radius Mower per manufacturer design (without swinging the leg over the steering wheel) and starts the engine.
- Start time

<u>Junior Division</u> –Time starts when the lawn and garden tractor/zero-radius mower's front axle crosses the Junior Division course "start line" (line that extends across the front of Obstacle 1 – serpentine).

<u>Senior Division</u> –Time starts when the lawn and garden tractor/zero-radius mower's rear axle crosses the Senior Division course "start line" (line across the rear of Obstacle 1– serpentine).

• Junior Division – All contestants must enter Obstacle 1 on the left hand side. The contestant then drives through the obstacle course as outlined in the Obstacle Course Diagram on page 31. Failure to do so is scored as "Failure to follow instructions."

Note: Lawn and Tractor Garden: For Junior Division, the contestant's entire tractor must extend beyond the imaginary line at the end of Obstacle 3 before he/she may back out of the obstacle. Failure to do so is scored as "Failure to follow instructions."

- Senior Division The contestant is to start through Obstacle 1 backing to the left side of the stake, then go forward through the serpentine using the opposite side to the left of the stake. The contestant then finishes the obstacle course as outlined in the Obstacle Course Diagram on page 32. Failure to do so is scored as "Failure to follow instructions."
- Scoring on Obstacle 2 "Semi-circle" is:
 - 10 points for every two-foot section of the semi-circle that the mower did not stay in the allowed 2 inches (maximum of 160 points).
 - If the mower is never within the allowed two inches, the contestant is penalized an additional 25 points for "Failure to follow instructions" (160 points + 25 points = 185 points).

- When the contestant comes upon the obstacle stick, he/she stops, safely dismounts the lawn and garden tractor/zero-radius mower (engine left running, transmission in park/parking brake set, mower blade disengaged, safely steps off the non-discharge side, does not swing leg over the steering wheel, does not jump off mower, etc.), and picks up the stick and hands it to an official judge or places it outside the course.
- Stop-stake --- The contestant will signal the judge when they are ready for the measurement to be taken.
- When the contestant has the lawn and garden tractor/zero-radius mower positioned in Obstacle 4 (shed) to his/her satisfaction, the contestant places the tractor/mower in park and then signals (throws one hand and arm into the air) the official judge that he/she is done. After the official judges have taken the measurements in Obstacle 4, the contestant returns lawn and garden tractor/zero-radius to the parking area.
- The contestant safely dismounts the lawn and garden tractor/zero-radius mower per manufacturer design (transmission in park/parking brake set, mower blade for disengaged, safely steps off the non-discharge side, does not swing leg over the steering wheel, does not jump off mower, etc.).

J. JUNIOR DIVISION LAWN AND GARDEN TRACTOR OBSTACLE COURSE

A - Width of tractor plus 4-6 inches

B - 2 times length of tractor

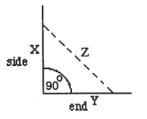
C - Length of tractor plus 10 feet

D - 1 1/2 A

Note: Dashed lines indicate backward travel

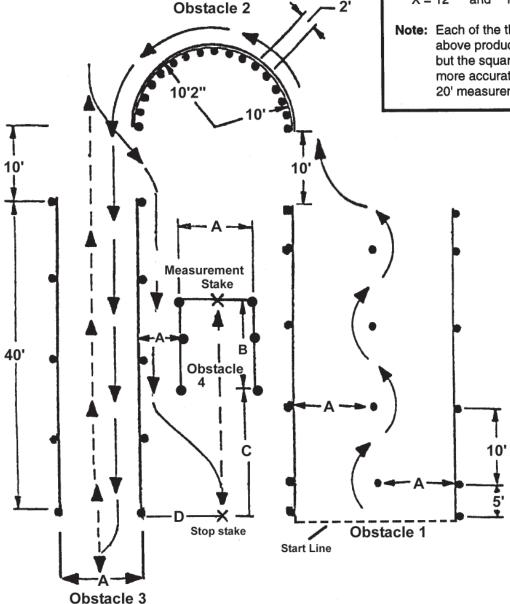
Squaring Obstacles 1, 3, and 4

To square a corner, measure along the side and end of the corner as indicated below.



If X = 3' and Y = 4', then Z = 5' X = 6' and Y = 8', then Z = 10' X = 12' and Y = 16', then Z = 20'

Note: Each of the three squaring values above produces a square corner, but the squareness of the corner is more accurate with the 12', 16', and 20' measurements.



K. SENIOR DIVISION LAWN AND GARDEN TRACTOR OBSTACLE COURSE

- Width of tractor plus 4-6 inches

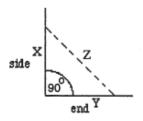
B - 2 times length of tractor

C - Length of tractor plus 10 feet

Note: Dashed lines indicate backward travel

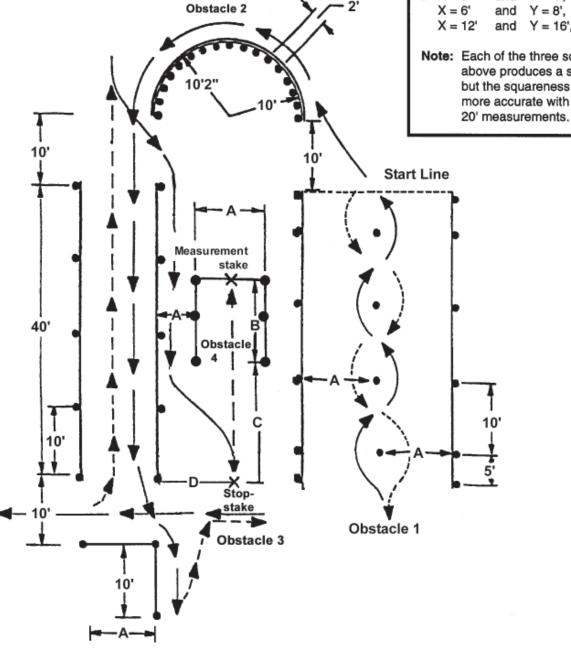
Squaring Obstacles 1, 3, and 4

To square a corner, measure along the side and end of the corner as indicated below.



then Z = 5'If X = 3' Y = 4'and X = 6'Y = 8', then $Z = 10^{\circ}$ Y = 16', then Z = 20'

Note: Each of the three squaring values above produces a square corner, but the squareness of the corner is more accurate with the 12', 16', and



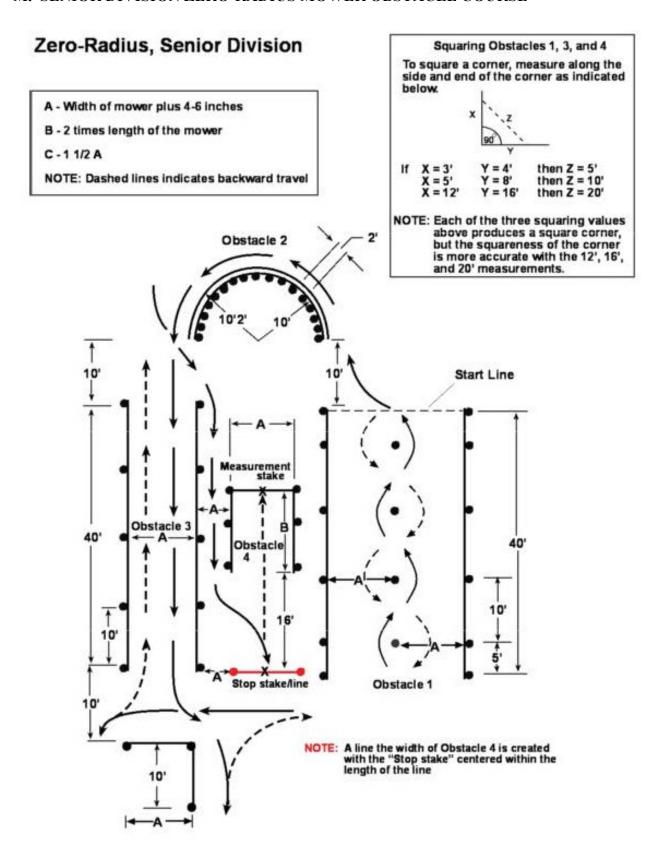
L. JUNIOR DIVISION ZERO-RADIUS MOWER OBSTACLE COURSE

Zero-Radius, Junior Division Squaring Obstacles 1, 3, and 4 To square a corner, measure along the A - Width of mower plus 4-6 inches side and end of the corner as indicated below. B - 2 times length of the mower C-1 1/2 A NOTE: Dashed lines indicates backward travel X = 3" then Z = 5' X = 5" Y = 8' then Z = 10' X = 12' Y = 16' then Z = 20' Obstacle 2 NOTE: Each of the three squaring values above produces a square corner, but the squareness of the corner is more accurate with the 12', 16', and 20' measurements. 10 10 Measurement stake Obstacle 1 Obstacle 3 40' 40' Obstacle 16' 10' Stop stake/line Start Line

NOTE: Junior Division Zero- Radius contestants drive forward through Obstacle 3 and then turn around and drive forward back through Obstacle 3.

A line the width of Obstacle 4 is created with the "Stop stake" centered within the length of the line

M. SENIOR DIVISION ZERO-RADIUS MOWER OBSTACLE COURSE



Contestant Name		Score
County		Contestant Number
	Scoring Sheet	

	6 Point Socket
	Air Filter Element
	Alternator
7.	Anti-freeze/Coolant Tester
	Ball Bearing
	Brake Pedal
	Combination Wrench
	Crowfoot Wrench
	Discharge Chute
	Drain Plug
	Engine Oil Dipstick / Fill Cap
	Fire Extinguisher
	Front Tire
	Fuel Fill Cap
	Fuel Filter
	Fuel Tank
	Fuse
	Garden Hose Nozzle
	Grass Clippers
	Headlight
	Hydraulic Control Levers
	Ignition Switch
	Lawn Mower Gauge Wheel
	Mower Deck
	Mower Deck Height Adjustment

Muffler
Park Brake Control Lever
Phillips Screwdriver
PPE (Personal Protective Equipment)
PTO (Power Take Off) Switch
Rear Tire
Reflector
Roller Chain
ROPS (Roll Over Protective Structure)
Rotary Mower Blade
Seat Safety Switch
Slotted Screwdriver
Spark Plug
Spark Plug Wire
Tail Light
Throttle Control Lever
Tire Tube
Torque Wrench
Torx Screwdriver
Universal Joint
Valve Core
Valve Stem
V-Belt Pulley
Warning Label
Wheel Lug Bolt

4-H LAWN AND GARDEN OPERATOR'S CONTEST SCORECARD

2025 4-H 84e-jr-lg

Junior Division

Contestant Name	
I. Written Exam: (Questions Missed or Omitted) II. Parts ID: (Parts Incorrectly Identified)	x 20 Subtotal: x 20 Subtotal:
 III. Safety: A. Prestart Check: Judge Initials	Subtotal:
 B. Starting Safely: 1. Failure to check neutral position 2. Failure to check mower blade for disengagement 	x 25 x 25
C. Driving Safety:1. Failure to ride on seat in a safe manner2. Skidding or spinning wheels	x 100
 Mounting and Dismounting Safety: Failure to mount and dismount safely per manufacturer design Failure to set brakes before dismounting Failure to bring tractor to complete stop before dismounting Failure to check mower blade for disengagement before dismounting 	x 100 x 50 x 100 x 50 x 50 x 50 x
 Cother Safety: Loose fitting or improper clothing Extra riders Failure to fasten seatbelt (if R.O.P.S. is up) Failure to adjust seatbelt (if R.O.P.S. is up) Other unsafe practices (x 25 x 100 x 100 x 50 x 100
 IV. Obstacle Course: A. General: 1. Change of direction 2. Failure to follow directions (3. Hitting or driving over Obstacle Stick 4. Failure to complete course as prescribed 	Subtotal: x 10
 Boundary and Stake Infractions: Brushing stakes or boundary lines Driving over a boundary line or stake Touching the measurement stake in Obstacle 4 Hitting or touching "STOP" stake 	x 20 x 50 x 50 x 50
 Semi-circle (Obstacle 2): Failure to stay within 2 inches per 2-foot section Failure to be within 2 inches at any section 	x 10
 Measurement (Obstacle 4): Inches mower deck is off center Inches mower is over 2 inches from the rear of the obstacle Inches mower is over 2 inches from the stop-stake 	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

- 1. Minutes
- 2. Seconds

		Subtotal:	
X	60		
X	1		
	X	x 60 x 1	x 60 x 1

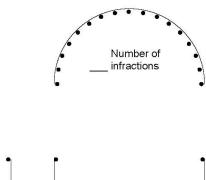
400 Subtotal:

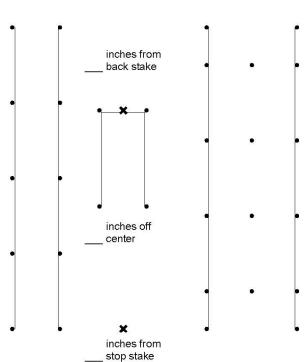
VI. Exceeding eight (8) minutes:

Directions:

Indicate each driving infraction (penalty) by placing the letter (B, O, C, S, F, 2) that corresponds to that particular penalty at the point on the course where the infraction occurred.

- B = Brushing stake or boundary
- O = Over boundary
- C = Change of Direction
- S = Skidding or spinning wheels
- F = Failure to follow directions or complete course.
- 2 =Outside two-inch margin when moving around Obstacle 2.





SENIOR LAWN AND GARDEN PARTS IDENTIFICATION

2019 4-H 84g-sr-lg

Contestant Name		Score
County		Contestant Number
	Scoring Sheet	,

perian	y: A total of ooo perially po
	6 Point Socket
	Air Cleaner Housing
	Air Filter Cover
	Air Filter Element
	Air Filter Pre-cleaner
	Alternator
	Anti-freeze/Coolant Tester
	Ball Bearing
	Ball Joint Linkage
	Brake Pedal
	Camshaft
	Carburetor
	Castor Gauge Wheel
	Choke Control Lever
	Combination Wrench
	Connecting Rod
	Crowfoot Wrench
	Cruise Control Set Lever
	Discharge Chute
	Distributor
	Drain Plug
	Dump Valve Release
	Edger Blade
	Engine Oil Filter
	Engine Oil Dipstick / Fill Cap
	Fire Extinguisher
	Flywheel
	Forward / Reverse Pedals
	Front Axle
	Front Tire
	Fuel Fill Cap

Fuel Filter
Fuel Pump
Fuel Tank
Fuse
Garden Hose Nozzle
Gear
Grass Clippers
Headlight
Hydraulic Control Levers
Hydraulic Oil Hose
Idler Pulley
Ignition Coil
Ignition Switch
Lawn Mower Gauge Wheel
Lawn Sprinkler Head
Mower Deck
Mower Deck Height Adjustment
Muffler
Needle Bearing
Park Brake Control Lever
Phillips Screwdriver
Piston
Piston Rings
PPE (Personal Protective Equipment)
PTO (Power Take Off) Switch
Radiator Cap
Rear Tire
Reflector
Roller Chain
Rotary Blade Adapter
Rotary Mower Blade

	ROPS (Roll Over Protective Structure)
	Seat Safety Switch
	Serpentine Belt
	Sleeve Bearing
	Slotted Screwdriver
	Spark Plug
	Spark Plug Wire
	Sprocket
	Starter
	Starter Solenoid
	Tail Light
	Tapered Roller Bearing
-	Throttle Control Lever
	Tie Rod End
	Tire Tube
	Torque Wrench
	Torx Screwdriver
	Transmission Oil Fill Cap
	Universal Joint
	Valve
	Valve Core
	Valve Cover
_	Valve Spring
	Valve Stem
	V-Belt
	V-Belt Pulley
	Warning Label
	Water Pump
	Wheel Lug Bolt

4-H LAWN AND GARDEN OPERATOR'S CONTEST SCORECARD

2025 4-H 84e-sr-lg

Senior Division

Contestant Name County	Contestant Number
I. Written Exam: (Questions Missed or Omitted)II. Parts ID: (Parts Incorrectly Identified)	x 20 Subtotal: x 20 Subtotal:
 III. Safety: A. Prestart Check: Judge Initials	Subtotal:
B. Starting Safely:1. Failure to check neutral position2. Failure to check mower blade for disengagement	x 25
C. Driving Safety:1. Failure to ride on seat in a safe manner2. Skidding or spinning wheels	x 100 x 50
 Mounting and Dismounting Safety: Failure to mount and dismount safely per manufacturer design Failure to set brakes before dismounting Failure to bring tractor to complete stop before dismounting Failure to check mower blade for disengagement before dismounting 	x 100 x 50 x 100 x 50
E. Other Safety: 1. Loose fitting or improper clothing 2. Extra riders 3. Failure to fasten seatbelt (if R.O.P.S. is up) 4. Failure to adjust seatbelt (if R.O.P.S. is up) 5. Other unsafe practices (x 25 x 100 x 100 x 50 x 100
IV. Obstacle Course: A. General: 1. Change of direction 2. Failure to follow directions (Subtotal:
 Boundary and Stake Infractions: Brushing stakes or boundary lines Driving over a boundary line or stake Touching the measurement stake in Obstacle 4 Hitting or touching "STOP" stake 	x 20 x 50 x 50 x 50
 Semi-circle (Obstacle 2): Failure to stay within 2 inches per 2-foot section Failure to be within 2 inches at any section 	x 10
 Measurement (Obstacle 4): Inches mower deck is off center Inches mower is over 2 inches from the rear of the obstacle Inches mower is over 2 inches from the stop-stake 	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

- 1. Minutes
- 2. Seconds

		Subtotal:	
_ X	60		
X	1		_
	_ x	_ x 60 x 1	x 60

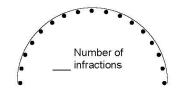
400 Subtotal:

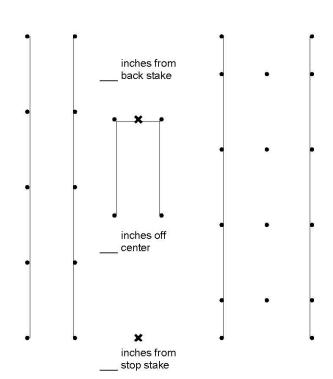
VI. Exceeding eight (8) minutes:

Directions:

Indicate each driving infraction (penalty) by placing the letter (B, O, C, S, F, 2) that corresponds to that particular penalty at the point on the course where the infraction occurred.

- B = Brushing stake or boundary
- O = Over boundary
- C = Change of Direction
- S = Skidding or spinning wheels
- F = Failure to follow directions or complete course.
- 2 = Outside two-inch margin when moving around Obstacle 2.







JUNIOR ZERO TURN PARTS IDENTIFICATION

2019 4-H 84f-jr-zt

Contestant Name		Score	
County		Contestant Number	
	Scoring Sheet		

	6 Point Socket				
	Air Filter Element				
	Alternator				
7.	Anti-freeze/Coolant Tester				
	Ball Bearing				
	Brake Pedal				
	Combination Wrench				
	Crowfoot Wrench				
	Discharge Chute				
	Drain Plug				
	Engine Oil Dipstick / Fill Cap				
	Fire Extinguisher				
	Front Tire				
	Fuel Fill Cap				
	Fuel Filter				
	Fuel Tank				
	Fuse				
	Garden Hose Nozzle				
	Grass Clippers				
	Headlight				
	Hydraulic Control Levers				
	Ignition Switch				
	Lawn Mower Gauge Wheel				
	Mower Deck				
	Mower Deck Height Adjustment				

ne penan	ty per tagged part) Time limit = 20 minutes.			
	Muffler			
	Park Brake Control Lever			
	Phillips Screwdriver PPE (Personal Protective Equipment)			
	PTO (Power Take Off) Switch			
	Rear Tire			
	Reflector			
	Roller Chain			
	ROPS (Roll Over Protective Structure)			
	Rotary Mower Blade			
	Seat Safety Switch			
	Slotted Screwdriver			
	Spark Plug			
	Spark Plug Wire			
	Tail Light			
	Throttle Control Lever			
	Tire Tube			
	Torque Wrench			
	Torx Screwdriver			
	Universal Joint			
	Valve Core			
	Valve Stem			
	V-Belt Pulley			
	Warning Label			
	Wheel Lug Bolt			

4-H ZERO TURN RADIUS OPERATOR'S CONTEST SCORECARD

2025 4-H 84e-jr-zt

Junior Division

Contestant Name County	Contestant Number Score		
I. Written Exam: (Questions Missed or Omitted)II. Parts ID: (Parts Incorrectly Identified)	x 20 Subtotal: x 20 Subtotal:		
 III. Safety: A. Prestart Check: Judge Initials	Subtotal:		
B. Starting Safely:1. Failure to check neutral position2. Failure to check mower blade for disengagement	x 25		
C. Driving Safety:1. Failure to ride on seat in a safe manner2. Skidding or spinning wheels	x 100		
 Mounting and Dismounting Safety: Failure to mount and dismount safely per manufacturer design Failure to set brakes before dismounting Failure to bring tractor to complete stop before dismounting Failure to check mower blade for disengagement before dismounting 	x 100 x 50 x 100 x 50		
 Cother Safety: Loose fitting or improper clothing Extra riders Failure to fasten seatbelt (if R.O.P.S. is up) Failure to adjust seatbelt (if R.O.P.S. is up) Other unsafe practices (x 25 x 100 x 100 x 50 x 100		
IV. Obstacle Course: A. General: 1. Change of direction 2. Failure to follow directions (3. Hitting or driving over Obstacle Stick 4. Failure to complete course as prescribed	Subtotal:		
 Boundary and Stake Infractions: Brushing stakes or boundary lines Driving over a boundary line or stake Touching the measurement stake in Obstacle 4 Hitting or touching "STOP" stake 	x 20 x 50 x 50 x 50		
 Semi-circle (Obstacle 2): Failure to stay within 2 inches per 2-foot section Failure to be within 2 inches at any section 	x 10		
 Measurement (Obstacle 4): Inches mower deck is off center Inches mower is over 2 inches from the rear of the obstacle Inches mower is over 2 inches from the stop-stake 	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		

- 1. Minutes
- 2. Seconds

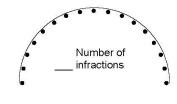
x 60 x 1 400 Subtotal:

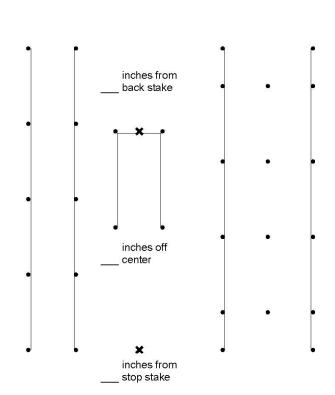
VI. Exceeding eight (8) minutes:

Directions:

Indicate each driving infraction (penalty) by placing the letter (B, O, C, S, F, 2) that corresponds to that particular penalty at the point on the course where the infraction occurred.

- B = Brushing stake or boundary
- O = Over boundary
- C = Change of Direction
- S = Skidding or spinning wheels
- F = Failure to follow directions or complete course.
- 2 = Outside two-inch margin when moving around Obstacle 2.





SENIOR ZERO TURN PARTS IDENTIFICATION

2019 4-H 84g-sr-zt

Contestant Name		Score	
County		Contestant Number	
<u> </u>	Scorina Sheet	 -	

 , ,,,				
6 Point Socket				
Air Cleaner Housing				
Air Filter Cover				
Air Filter Element				
Air Filter Pre-cleaner				
Alternator				
Anti-freeze/Coolant Tester				
Ball Bearing				
Ball Joint Linkage				
Brake Pedal				
Camshaft				
Carburetor				
Castor Gauge Wheel				
Choke Control Lever				
Combination Wrench				
Connecting Rod				
Crowfoot Wrench				
Cruise Control Set Lever				
Discharge Chute				
Distributor				
Drain Plug				
Dump Valve Release				
Edger Blade				
Engine Oil Filter				
Engine Oil Dipstick / Fill Cap				
Fire Extinguisher				
Flywheel				
Forward / Reverse Pedals				
Front Axle				
Front Tire				
Fuel Fill Cap				

Fuel Filter
Fuel Pump
Fuel Tank
Fuse
Garden Hose Nozzle
Gear
Grass Clippers
Headlight
Hydraulic Control Levers
Hydraulic Oil Hose
Idler Pulley
Ignition Coil
Ignition Switch
Lawn Mower Gauge Wheel
Lawn Sprinkler Head
Mower Deck
Mower Deck Height Adjustment
Muffler
Needle Bearing
Park Brake Control Lever
Phillips Screwdriver
Piston
Piston Rings
PPE (Personal Protective Equipment)
PTO (Power Take Off) Switch
Radiator Cap
Rear Tire
Reflector
Roller Chain
Rotary Blade Adapter
Rotary Mower Blade

ROPS				
(Roll Over Protective Structure)				
Seat Safety Switch				
Serpentine Belt				
Sleeve Bearing				
Slotted Screwdriver				
Spark Plug				
Spark Plug Wire				
Sprocket				
Starter				
Starter Solenoid				
Tail Light				
Tapered Roller Bearing				
Throttle Control Lever				
Tie Rod End				
Tire Tube				
Torque Wrench				
Torx Screwdriver				
Transmission Oil Fill Cap				
Universal Joint				
Valve				
Valve Core				
Valve Cover				
Valve Spring				
Valve Stem				
V-Belt				
V-Belt Pulley				
Warning Label				
Water Pump				
Wheel Lug Bolt				

4-H ZERO TURN RADIUS OPERATOR'S CONTEST SCORECARD

2025 4-H 84e-sr-zt

Senior Division

Contestant Name	Contestant Number
County	Score
I. Written Exam: (Questions Missed or Omitted)II. Parts ID: (Parts Incorrectly Identified)	x 20 Subtotal: _ x 20 Subtotal:
III. Safety:	Subtotal:
A. Prestart Check: Judge Initials	
1. Failure to check fuel level	x 25
2. Failure to check oil level	x 25
Failure to observe tire inflation Failure to observe leave or missing parts (seek part)	x 25
4. Failure to observe loose or missing parts (each part)	x 25
B. Starting Safely:	
1. Failure to check neutral position	x 25
2. Failure to check mower blade for disengagement	x 25
C. Driving Safety:1. Failure to ride on seat in a safe manner	100
 Failure to ride on seat in a safe manner Skidding or spinning wheels 	x 100 x 50
2. Skidding of spinning wheels	^
D. Mounting and Dismounting Safety:	
1. Failure to mount and dismount safely per manufacturer design	x 100
2. Failure to set brakes before dismounting	x 50
3. Failure to bring tractor to complete stop before dismounting	x 100
4. Failure to check mower blade for disengagement before dismounting	x 50
E. Other Safety:	
Loose fitting or improper clothing	x 25
2. Extra riders	x 100
3. Failure to fasten seatbelt (if R.O.P.S. is up)	x 100
4. Failure to adjust seatbelt (if R.O.P.S. is up)	x 50
5. Other unsafe practices (x 100
IV. Obstacle Course:	Subtotal:
A. General:	<u> </u>
Change of direction	x 10
2. Failure to follow directions (x 25
3. Hitting or driving over Obstacle Stick	x 50
4. Failure to complete course as prescribed	x 1000
B. Boundary and Stake Infractions:	
Brushing stakes or boundary lines	x 20
2. Driving over a boundary line or stake	x 50
3. Touching the measurement stake in Obstacle 4	x 50
4. Hitting or touching "STOP" stake	x 50
C. Sami simple (Obstanle 2).	
C. Semi-circle (Obstacle 2):1. Failure to stay within 2 inches per 2-foot section	x 10
2. Failure to be within 2 inches at any section	x 10
2. 2 among to the manufacture of the property	
D. Measurement (Obstacle 4):	
1. Inches mower deck is off center	x 2
2. Inches mower is over 2 inches from the rear of the obstacle	x 2
3. Inches mower is over 2 inches from the stop-stake	x 2)

- 1. Minutes
- 2. Seconds

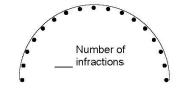
			Subtotal:	
2 	_ x	60 1		
		400	Subtotal:	

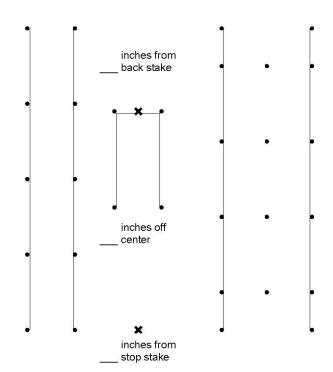
VI. Exceeding eight (8) minutes:

Directions:

Indicate each driving infraction (penalty) by placing the letter (B, O, C, S, F, 2) that corresponds to that particular penalty at the point on the course where the infraction occurred.

- B = Brushing stake or boundary
- O = Over boundary
- C = Change of Direction
- S = Skidding or spinning wheels
- F = Failure to follow directions or complete course.
- 2 = Outside two-inch margin when moving around Obstacle 2.







Notes